Claims

1. An impression coping system comprising an implant fastener or attachment means adapted to engage with an implant and a coping component which engages with the implant fastener and is adapted to support an impression material characterised in that the implant fastener and coping component are adapted to be used for pick-up type (open tray) impression moulding techniques and/or transfer type (closed tray) impression moulding techniques.

2. An impression coping system according to claim 1 characterised in that the implant faster is provided at an implant engaging end with a screw thread.

3. An impression coping system according to claim 2 characterised in that the implant faster is a coping screw.

4. An impression coping system according to claim 1 characterised in that the implant fastener is adapted for use in pick-up type (open tray) impression moulding techniques and is provided with a mountable and removable extension means which, in use, is sufficiently dimensioned so as to act as an extension of the implant fastener and protrude through the impression material.

5. An impression coping system according to claim 4 characterised in that the extension means is adapted to form a snug fit on the external surface of the body of the fastener.

6. An impression coping system according to claim 5 characterised in that the extension means comprises a tubular sleeve.

7. An impression coping system according to claim 6 characterised in that the tubular sleeve is profiled.

8. An impression coping system according to claim 6 characterised in that the tubular sleeve is adapted to be cut to an appropriate length.

9. An impression coping system according to claim 6 characterised in that the tubular sleeve comprises a plastics sleeve.

10. An impression coping system according to claim 4 characterised in that the extension means is adapted to stay in the impression material after impression.

11. An impression coping system according to claim 4 characterised in that the tubular passage is adapted to stay on the implant fastener and thereby is removed from the impression material after impression.

12. An impression coping system according to claim 4 characterised in that the extension member is placed mainly in the contact coping by the manufacturer.

13. An impression coping system according to claim 1 characterised in that the implant fastener is adapted for use in transfer type (closed tray) impression moulding techniques and is provided with an attachment which is adapted to space the implant fastener from the implant.

14. An impression coping system according to claim 13 characterised in that the implant faster is provided with a fastening region

15. An impression coping system according to claim 14 characterised in that the fastening region is of narrower diameter than the body of the fastener.

16. An impression coping system according to claim 14 characterised in that the fastening region an implant engaging end with a screw thread.

17. An impression coping system according to claim 15 characterised in that the fastening region is provided with a shoulder.

18. An impression coping system according to claim 13 characterised in that the spacer is adapted to be removed by a conventional dentistry implement or finger

19. An impression coping system according to claim 13 characterised in that the spacer is an annular ring.

20. An impression coping system according to claim 19 characterised in that the spacer comprises an annular split ring.

21. An impression coping system according to claim 1 characterised in that the coping component comprises an annular sleeve.

22. An impression coping system according to claim 21 characterised in that the annular coping sleeve comprises a slidable sleeve

23. An impression coping system according to claim 22 characterised in that the annular coping sleeve is rotatably slidable.

24. An impression coping system according to claim 1 characterised in that the coping sleeve adapted to be supported by a surface of the implant.

25. An impression coping system according to claim 1 characterised in that the implant is provided with a shoulder for supporting coping sleeve.

26. An impression coping system according to claim 21 characterised in that the diameter of coping sleeve is substantially the same as the diameter of the implant.

27. An impression coping system according to claim 13 characterised in that the spacer is placed mainly in contact with the fastening region by the manufacturer.

28. A method of making an open tray dental impression which comprises the steps of;

(i) placing a coping component on the implant fastener, the fastener optionally being equipped with a spacer;

(ii) engaging the fastener and coping component with an implant;

(iii) if the extender or superstructure is not already pre-mounted by manufacturer, placing an extender component or superstructure component on the fastener and/or coping component or any other suitable function, and optionally adjusting the height of the extender component or superstructure component;

(iv) moulding an impression material around the coping component and the extender;

(v) disengaging the coping component from the implant by unscrewing the screw:

(vi) removing the impression moulded material (which at this point will carry the coping component, fastener and extender or superstructure);

(vii) fitting the implant analogue to the coping component and the screw ; and

(viii) fabricating a master cast from the impression moulding containing the implant analogue positioned on the coping component and completing the transfer of the implant position from the oral cavity to a model of the oral cavity.

29. A method of making a closed tray dental impression which comprises the steps of;

(i) placing a coping component on an implant fastener;

(ii) engaging the fastener, which is fitted with a spacer element, with an implant;

(iii) moulding an impression material around the coping component;

(iv) removing the impression moulded material;

(v) removing the spacer element from the fastener and fitting the fastener and coping component to the implant analogue; prior to refitting the coping component

engaged with the implant analogue, preferably by the retention of the fastener, into the socket of the impression material, by pushing the coping component and turning it to the correct position determined by positioning means on the coping component; and

(vi) fabricating a master cast from the impression moulding containing the implant analogue positioned on the coping component and completing the transfer of the implant position from the oral cavity to a model of the oral cavity.

30. An impression coping according to claim 13 wherein a means of the impression coping screw is only removed for the transfer type (closed tray) impression moulding techniques to decrease the height of the screw shaft after impression taking and prior to reinsertion of the impression coping in the impression material for the making of a master cast for the transfer type application, and thereby increasing the accuracy of the transfer type impression application

said means being a spacer in the form of an open or closed ring, tube or cylinder placed around the screw neck under the screw shaft , the height preferably of larger height than the inner tool connection of the attachment means, said spacer being removed prior to reinsertion of the impression coping in the impression material.

32. An impression coping according to claim 13 wherein a means of the impression coping screw is removed to decrease the height of the screw shaft after impression taking and prior to reinsertion of the impression coping in the impression material for the making of a master cast for the transfer type application, and thereby increasing the accuracy of the transfer type impression application

said means being a spacer in the form of an open or closed ring, tube or cylinder placed around the screw neck under the screw shaft , the height preferably of larger height than the inner tool connection of the attachment means, said spacer being exhibiting elastic properties in such way that the height of the spacer depends on torque levels thus being unnecessary to remove, said torque levels being higher for

the attachment for the model making on the implant analogue than for the model taking on the implant.

33. A dental impression coping system according to claim 1 for co-operating with an impression material to take an impression for making a model of a region in a mouth adjacent to an aperture in gingiva which exposes an implant that is installed in bone for pick-up type (open tray) and/or transfer type (closed tray) impression moulding techniques, said system comprising:

a non-rotational fitting for mating with a corresponding fitting of said implant;

an outer surface having a transgingival section configured to fit within said aperture and a supragingival section for embedment in said impression material, said supragingival section having at least one part with a non-circular cross-sectional, said impression coping capable of being transferred back into said impression material after said impression is taken preferably if using a transfer type impression mould technique;

a means intended for fastening or clamping said impression coping to said implant,

an inner surface defining a passage that is generally aligned with said implant for receiving an attachment means intended for fastening said impression coping to said implant:

an attachment means intended for fastening said impression coping to said implant providing the said impression coping

a superstructure or extender being able to be mounted in contact with said attachment means or said impression coping providing a means to access the said attachment means through the said impression material also providing the said impression coping to be used with the said pick-up impression application.

34. The impression coping of claim 1 wherein said implant fastener or attachment means for pick-up type (open tray) and/or transfer type (closed tray) coping component relies upon on friction, elastics or mechanical interlocking.

35. The impression coping of claim 1 wherein the outer surface of the coping component is provided with a plurality of recesses.

36. An impression coping according to claim 1 wherein a spacer attached to screw can exhibit the retention of the attachment means being a screw, to the impression coping inner recess avoiding the part to disengage during carrying, placing and removal from the implant or implant analogue.

37. An extension component for use in a system according to claim 4.

38. An extension component according to claim 37 characterised in that the extension component comprises a tubular sleeve.

39. The use of an extension component in a method according to claim 28.

40. The use of an extension component in a system according to claim 4.

41. The use of a spacer in a method according to claim 29.

42. The use of a spacer in a system according to claim 13.

43. A spacer component for use in a system according to claim 1

44. A spacer component according to claim 43 characterised in that the spacer comprises an annular ring.

removing the superstructure or extender prior to model taking if using the transfer type application

applying impression material into said mouth and around said at least one first and second interlocking recesses of said coping, said second recess having a predetermined angular orientation with respect to said impression material after being applied around said coping;

if using said transfer type application removing said impression material from said mouth and then removing the impression coping from the implant by unscrewing the screw by hand or by screw driver followed by mounting the implant analogue on the impression coping after having removed the spacer on the impression coping screw and subsequently reinserting said impression coping into an opening, preferably the same it was earlier removed from, within said impression material:

if using said pick-up application removing said impression coping from the implant by unscrewing the screw through the said access means, superstructure or extender followed by moving said impression material and impression coping arrangement from said mouth and mounting the implant analogue on the impression coping;

the casting of the stone model is then made irregardless of pick-up or transfer type impression technique.

51. A kit suitable for pick-up type (open tray) impression moulding comprising at least an implant fastener, a coping component and an extension member.

52. A kit suitable for transfer type (closed tray) impression moulding comprising at least an implant fastener, a coping component and a spacer.

53. An impression coping system or a method substantially as described with reference to the accompanying examples.